thinner and pass over directly into the central fibrils. The processes of the ganglion-cells of the second type are broad dark fibres, upon which the sheath extends its cells for a long distance. They can therefore be easily traced in the nervous system among the fine fibrils, especially as their breadth does not diminish. After running some distance they lose their sheath and soon afterwards disappear in the mass of fine fibrils. It seems to me most probable that, like the colossal nerve-fibres, which they greatly resemble, they pass into the fibrillar substance by brush-like division, as I could never observe any binary division.

If we examine the ganglion-cells of the second type, and especially the colossal ones, we find that the whole cell is traversed in all directions by fibrils of different strengths, which pass over into the cell-process and give it a fine longitudinal striation. But these fibrils do not quit the cells only in this way; one is astonished to see how they issue everywhere at the periphery of the naked cell-body, singly or united into bundles, and penetrate into the subcuticular envelope. This observation may be made uniformly in preparations hardened in alcohol or in corrosive sublimate or osmic acid. Whether the ganglion-cells are united to one another by means of these fibrils I have been unable to decide, as they were not to be traced beyond the envelope of subcuticular fibres.

XXXII.—*An Entomogenous Fungus.*

By William Fawcett, B.Sc., F.L.S.

Dr. Günther has received from Mr. C. A. Lloyd, George Town, Demerara, a remarkable fungus growing on an ant (*Camponotus atriceps*). Mr. Lloyd found it on the banks of the river Puruni, in British Guiana, and though he has collected numerous specimens of different species of ants, he has not hitherto met with a similar growth. It is not so usual to find them on a perfect insect as on larvæ. Of the 47 species noted by Saccardo[*], 23 (or about 50 per cent.) are found on larvæ, and only 16 (or about 33 per cent.) on perfect insects. Of these 16 species Saccardo only mentions 3 as having been found on ants—*Cordyceps unilateralis* on *Atta cephalota* in Brazil, *C. australis* on *Pachycondyla striata* in Brazil, and *C. myrmecophila* on *Myrmica rufa* (also rarely on an ichneumon and a beetle) in North America, Europe (including England), Ceylon, and Borneo.

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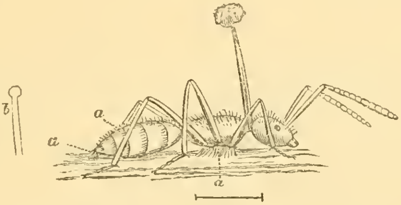
[*] 'Sylloge Fungorum,' vol. ii.

In the British Museum collection *Cordyceps unilateralis* also occurs on *Camponotus atriceps* from Brazil, and on *Echinopla melanarctos* and *Polyrhachis merops*, both collected by Mr. A. R. Wallace at Tondano, a village in the island of Celebes; *Formica sexguttata*, from Brazil, is also attacked by a fungus, too incomplete for identification.

Two species of *Cordyceps* are reported to have been found on species of *Coccus*, namely *C. pistillariæformis*, in England and North America, and *C. coccigena*, in New Guinea. The latter was partially described by Tulasne * from an immature specimen. The figure which he gives bears a great resemblance to Mr. Lloyd's fungus, and it is possible that it may be the same species.



Cordyceps Lloydii. *a*, mycelium; *b*, apex of ascus.

The ant has the appearance of having been attacked by the fungus while it was alive. The growth of the fine threads of the mycelium through the body would gradually exhaust it, until at last they have grown out at the joints of the thorax and abdomen, and attached it to the leaf on which it was standing, while the capitate stroma has then grown up between the head and thorax.

The following is a description of the fungus:—

Cordyceps Lloydii, nov. sp.

Stromatibus solitariis, pallide ochroleucis, ex articulo cervicali enatis; *capitulum* perithecigerum depresso-globosum, altitudine circ. 0·7 mill., latitudine circ. 1·5 mill.; *stipite* filiformi, infra medium autem incrassata, longitudine 4·5 mill., crassitudine ad basim apicemque 0·25 mill., infra medium 0·5 mill.; *peritheciis* stromate immersis protracto-ovatis; *ascis* longissimis, cylindraceis,

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[*] Fung. Carp. iii. p. 19, tab. i. fig. 10.

apice glandiformibus, circiter 160 μ, aparaphysatis; *sporidiis* filiformibus, asci longitudine, hyalinis, immaturis.

Hab. in corpore formicæ atræ (*Camponotus atriceps*), prope flumen Puruni in Guiana (*C. A. Lloyd*).

A long filament also springs from between the thorax and the abdomen, ending in an acute apex.

XXXIII.—*Description of a new Species of* Sphenophorus (*Coleoptera, Calandridæ*). By CHARLES O. WATERHOUSE.

Sphenophorus Cumingii, n. sp.

Elliptico-ovalis, convexus, niger, nitidus; maculis sordide albis notatus.

Long. 7 lin.

A little shorter than *S. piceus*, with the elytra decidedly more convex; the thorax and tarsi quite differently formed. Rostrum rather stout, shining, with a deep elongate fovea at the base. The antennæ as in *S. piceus.* Thorax as long as the width at the base, slightly constricted in the middle, widest at the posterior angles, which are a little prominent. The surface is dull, except the front part of the disk; the punctuation fine and moderately close, except in front, where the punctures are larger. There is a yellowish-white spot at the anterior angle, one in the middle in front (placed in a slight depression), one on each side of the disk, and three at the base. Scutellum small and narrow. Elytra broadest just below the shoulders, very slightly constricted about the middle; shining, except a rather broad, dull velvety band across the middle and at the apex; punctate-striate, the punctures in the striæ elongate, very distinct; the interstices flat, very delicately punctured on the disk, strongly punctured at the base and apex. Each elytron has seven small yellowish-white spots—one near the scutellum; another below the shoulder; three rather behind the middle on the third, fifth, and eighth interstices; and two at the apex. Pygidium convex, obtusely rounded at the apex, dull, the punctuation rather fine. Underside with several white spots. The anterior coxæ more separated than in *S. piceus*, with two slight swellings behind them. Tarsi with the first and second joints narrow, the third large, equilaterally triangular, with the angles rounded.

Hab. Philippine Islands (*H. Cuming*).